

Claims

What is claimed is:

- 5 1. A method for presenting a double byte character on
a display device of an AV decoding/playing/copying
system to update a frame of the display device, the
method comprising:
 - (a) storing a double byte character set (DBCS)
10 file and a video source file in a storage
medium;
 - (b) accessing the file system information of the
storage medium and calculating the length of
a file name of the video source file;
 - 15 (c) accessing the required double byte character
from the DBCS file; and
 - (d) updating the original information of an
on-screen display (OSD) to update a frame of
the display device according to the received
20 double byte character.
2. The method of claim 1 wherein the storage medium
is an optical disc or a memory card.
- 25 3. The method of claim 1 wherein step (c) further
comprises:
 - (c1) calculating a physical location of the
required double byte character in the
storage medium; and
 - 30 (c2) capturing the required double byte
character from the physical location.

4. The method of claim 3 wherein the DBCS file is BIG5 internal code system, gbk internal code system, or Unicode Korean internal code system, and step (c1) is achieved by the following steps:

5 calculating high and low byte differences of the internal code of the required double byte character and the beginning code of the file of DBCS; and

 subtracting a value of quantities of blank code
10 locations from the high and low byte differences, and calculating the physical location of the required double byte character in the storage medium by adding the number of font bytes to the number of bytes
15 of the double byte character.

5. The method of claim 3 wherein the file of a double byte character set is Shift-JIS internal code system, and step (c1) is achieved by the following steps:

20 if the internal code of the required double byte character is located within a first section of the internal code system, calculating the high byte difference of the internal code of the required double byte character and the beginning internal code of the first section,
25 calculating the low byte difference of the internal code of the required double byte character and the beginning internal code of the first section, subtracting a value of
30 quantities of blank code locations from the high and low byte differences, and calculating the physical location of the

required double byte character in the storage medium by adding the number of font bytes to the number of bytes of the double byte character;

5 if the internal code of the required double byte character is located within a second section of the internal code system, calculating the high byte difference of the internal code of the required double byte character and the
10 beginning internal code of the second section, calculating the low byte difference of the internal code of the required double byte character and the beginning internal code of the second section, subtracting a value of
15 quantities of blank code locations and the number of bytes of codes in the first section from the high and low byte differences, and calculating the physical location of the required double byte character in the storage
20 medium by adding the number of font bytes to the number of bytes of the double byte character; and

 if the internal code of the required double byte character is located within a third section
25 of the internal code system, calculating the high byte difference of the internal code of the required double byte character and the beginning internal code of the third section, calculating the low byte difference of the
30 internal code of the required double byte character and the beginning internal code of the third section, subtracting a value of

quantities of blank code locations and the numbers of bytes of codes in the first and second sections from the high and low byte differences, and calculating the physical location of the required double byte character in the storage medium by adding the number of font bytes to the number of bytes of the double byte character;

6. The method of claim 1 wherein the video source file is an MP3 (MPEG layer 3) file.

7. An AV decoding/playing/copying system that presents a double byte character on a display device by an on-screen display function to update a frame of the display device, the AV decoding/playing/copying system comprising:

- a storage medium for storing a video source file and at least one type of double byte character set file;
- an on-screen display (OSD) buffer memory for storing OSD information;
- a memory;
- a processor electrically connected to the memory, the process capable of accessing a file system of the storage medium and temporarily storing an internal code of a file name in the memory; and
- an on-screen display unit electrically connected to the OSD buffer memory, the on-screen display unit capable of capturing a required double byte character from the double byte

character set file through the processor according to the internal code of the file name temporarily stored in the memory, and presenting the required double byte character on the display device according to the OSD information to update the frame of the display device.

8. The AV decoding/playing/copying system of claim 7 wherein the processor further including a file separation module for separating the double byte character set file from the file system of the storage medium in order to access the double byte character.

9. The AV decoding/playing/copying system of claim 7 wherein the processor further including a character calculation module for calculating location offsets of each character corresponding to internal codes according to a beginning location and an end location defined by the double byte character set file to obtain the physical location of each character.

10. The AV decoding/playing/copying system of claim 7 wherein the storage medium is an optical disc or a memory card.

11. The AV decoding/playing/copying system of claim 7 further comprising a detector module for detecting the locations of the video source file and the double byte character set file and for

switching the locations of the video source file
and the double byte character set file when the
video source file and the double byte character
set file stored in several types of storage media
5 are obtained.

12. The AV decoding/playing/copying system of claim
7 wherein the video source file is an MP3 file.